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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/717,030 | 11/18/2003 | Donald A. Anderson | 091-0194 | 7340 |
| 27431 | 7590 | 01/30/2007 | EXAMINER | |
| SHIMOKAJI & ASSOCIATES, P.C. 8911 RESEARCH DRIVE IRVINE, CA 92618 | | | OMGBA, ESSAMA | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3726 | |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
| 3 MONTHS | | 01/30/2007 | PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | |
|------------------------------|-----------------|-----------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/717,030 | ANDERSON ET AL. |
| Examiner | Art Unit | |
| Essama Omgbra | 3726 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 09 November 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,3-20,26-30,32,33 and 35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 10-20,26-29,33 and 35 is/are allowed.
- 6) Claim(s) 1,3,5-9,30 and 32 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 3, 5-9, 30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCarville et al. (US Patent 5,968,445) in view of Palmer (US Patent 4,311,661).

With regards to claim 1, McCarville et al. discloses a method of sealing a vacuum membrane to a surface 31, the method comprising defining a vacuum zone (the surface encompassed by element 50 in figure 2), placing a breather 38 over the surface within the vacuum zone, placing a membrane over the breather (non-labeled element over element 40 in figure 2), the membrane covering the vacuum zone, covering the vacuum zone with a laminate release surface 50 (col. 5, lines 56-67 and col. 6, lines 1-49), and using a sealant tape at the boundary of the vacuum zone (col. 6, lines 59-61). Applicant should note that a vacuum seal is formed inside surface 50. Although McCarville et al. does not disclose the sealant tape being a double-stick tape, however it is known to use a double-stick sealant at the boundary of a vacuum zone as attested by Palmer, see column 4, lines 1-3 and the figure. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used a double-stick tape as the sealant tape of McCarville et al., in light of the teachings of Palmer, as is known in the art.

For claim 3, it is inherent that the breather will adhere to the surface.

For claims 5 and 6, see column 6, lines 46-49 and 59-61 of McCarville et al.

For claims 7-9, see column 5, lines 43-45 and figure 2 of McCarville et al.

For claim 30, McCarville et al. discloses a tool for manufacturing large aircraft parts, the tool comprising a mandrel 30 having a lay-up surface 31 and a vacuum zone defined on the lay-up surface by a low profile vacuum seal at a boundary of the vacuum zone (the surface encompassed by element 50 in figure 2), a membrane (non-labeled element over element 40 in figure 2) covering the vacuum zone, a laminate release surface 50 covering the low profile vacuum seal (col. 5, lines 31-45, col. 6, lines 45-49 and figure 2), and a sealant tape at the boundary of the vacuum zone (col. 6, lines 59-61). Applicant should note that a vacuum seal is formed inside surface 50. Although McCarville et al. does not disclose the sealant tape being a double-stick tape, however it is known to use a double-stick sealant at the boundary of a vacuum zone as attested by Palmer, see column 4, lines 1-3 and the figure. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used a double-stick tape as the sealant tape of McCarville et al., in light of the teachings of Palmer, as is known in the art.

For claim 32, see column 6, lines 6-9 of McCarville.

Allowable Subject Matter

3. Claims 10-20, 26-29, 33 and 35 are allowed.

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4. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments filed November 9, 2006 have been fully considered but they are not persuasive.

In response to Applicant's argument that Palmer is silent with respect to the seal at 30, the examiner respectfully disagrees. As outlined in the above rejections, Palmer, in column 4, lines 1-3, teaches that "**edges of the vacuum bag are sealed as at 30 to the surface 10 of the tool**" (emphasis added). It is clear from the figure that element 30 is a sealant bead that seals the space between bag 28 and the surface 10 of the tool as disclosed in the Palmer's specification. One of ordinary skill in the art would find it obvious that element 30 is adhered both to inner surfaces of bag 28 and of the tool, thus element 30 could be considered a double-stick tape or at least is structurally equivalent to a double-stick tape. The examiner respectfully disagrees with Applicant's belief that material 30 is a mold release material disclosed in column 3, lines 6-8 of Palmer. Contrary to Applicant's belief, numeral "33" in "Freekote 33" is not a reference numeral but rather appears to be part of a trade name for a Teflon emulsion that is used as a mold release material. As correctly pointed out by Applicant the figure does not show a reference numeral 33.

In view of the above remarks, the examiner maintains that a *prima facie* case of obviousness has been established in the instant application as outlined in the above rejections.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Essama Omgbala whose telephone number is (571) 272-4532. The examiner can normally be reached on M-F 9-6:30, 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Essama Omgba
Primary Examiner
Art Unit 3726

eo

January 20, 2007